

# ***San Joaquin Valley Unified Air Pollution Control District***

**PERMIT UNIT:** C-261-2-5

**EXPIRATION DATE:** 5/31/2003

**EQUIPMENT DESCRIPTION:**

96.0 MMBTU/HR, 325 METRIC TONS/DAY REFRACTORY TYPE GLASS MELTING OXY-FUEL FURNACE WITH TWELVE(12) 8.0 MMBTU/HR CORNING OXY-BURNERS, WITH CAUSTIC INJECTION SYSTEM AND UNITED MCGILL DRY ELECTROSTATIC PRECIPITATOR. TITLE V OPERATING PERMIT MODIFICATION

## **Permit Unit Requirements**

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
2. The glass melting furnace shall produce no more than 325 metric tons/day nor 118,625 metric tons/year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA or CARB. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
3. With approval from EPA, CertainTeed corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
4. EPA shall be notified by letter 30 days prior to the fuel switch or production increase in order to make a determination of whether additional performance testing is required. In the case of an emergency fuel switch, EPA shall be notified by letter postmarked within 15 days of the fuel switch. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
5. The sulfur content of fuel oil shall not exceed 0.05% by weight. [District NSR Rule; Madera County Rule 404] Federally Enforceable Through Title V Permit
6. The rate of fuel oil consumption shall not exceed 570 gal/min nor 5,000,000 gal/year. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Sulfur content of the fuel oil shall be determined by ASTM Method D-129, D-1552 or the most current method promulgated by ASTM. Other methods may be used if approved by EPA, Region 9 (Attention: A-3-3). [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
8. Certification of the sulfur content of each fuel oil delivery by the supplier will be acceptable; the analytical method used to determine sulfur content must be one of those cited. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit

9. All natural gas used by the facility shall be PUC regulated. [District NSR Rule; PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
10. A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District NSR Rule; District Rule 4354; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
11. Source tests shall be performed while operating at design capacity. To determine worst case emissions, the tests shall be performed while firing on natural gas, and separately while firing 0.05% sulfur backup fuel oil. With prior EPA and District approval, source testing may be performed as otherwise provided. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NO<sub>x</sub>, SO<sub>x</sub>, and VOC. [District Rule 2520, 9.4.2; and Rule 4354, 6.3; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District NSR Rule; District Rule 4202; and Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. Source tests for PM shall be performed at the outlet of the dry ESP, the outlet of the three wet ESP's and the final stack. The source tests for NO<sub>x</sub>, SO<sub>x</sub>, and VOC shall be performed at the final stack. [District NSR Rule; District Rule 4202; and Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. The outlets of the dry ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The applicant shall maintain and operate CEM to measure stack gas NO<sub>x</sub> concentration (per 40 CFR 60.13 and 40 CFR, Appendix B, Performance Spec. 2; and 40 CFR 60 Appendix F) and stack gas volumetric flow rate (per 40 CFR Part 52, Appendix E). [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
19. The applicant shall maintain and operate an opacity CEMS in the final stack to continuously measure the opacity of stack emissions. The opacity CEMS shall meet EPA specs. (40 CFR 60.13; and 40 CFR 60, Appendix B, Performance Specification 1) [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
20. CertainTeed Corporation shall submit to EPA (Attention: Air-5) a written report of all excess emissions for each calendar quarter. The report shall include the conditions specified in EPA Permit Special Conditions IX.J.4. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
21. Excess emissions indicated by the CEM system shall be considered violations of the applicable emissions limits for the purposes of this permit. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

22. CertainTeed shall continuously operate and maintain the caustic soda injection system for the pretreatment of the glass furnace gas stream upstream of the dry ESP. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

23. Both the caustic soda injection system (scrubber) and the dry electrostatic precipitator shall be functioning as air pollution abatement devices whenever the glass melting furnace is in operation. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

24. In the quarterly excess emission reports, CertainTeed shall report all dates and times when process gases are vented to the bypass stack and shall also report the reason for each instance of venting to the bypass stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

25. Dry Electrostatic Precipitator (ESP) outlet emissions shall not exceed 8.4 lbs PM/hr. [District NSR Rule; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

26. When the furnace is heated with natural gas, final stack emissions shall not exceed 22.8 lb PM/hr, 18.0 lb HC/hr, 55.9 lb NO<sub>x</sub>/hr, 24.3 lb SO<sub>x</sub>/hr, nor 44.7 lb CO/hr. [District NSR Rule; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

27. When the furnace is heated with fuel oil, final stack emissions shall not exceed 22.8 lb PM/hr, 18.0 lb HC/hr, 40.0 lb NO<sub>x</sub>/hr, 54.0 lb SO<sub>x</sub>/hr, nor 44.7 lb CO/hr. [District NSR Rule; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

28. Inlet ductwork to United McGill model 4-300 dry ESP may be rerouted from the bottom to side of the equipment. [District NSR Rule] Federally Enforceable Through Title V Permit

29. The caustic injection system serving the glass furnace may be fitted with a cone at the bottom of the chamber to alleviate caustic build-up. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

31. CertainTeed Corporation shall maintain and operate the following continuous emissions monitoring systems (CEMS) in the final stack: (1) a CEMS to measure stack gas NO<sub>x</sub> concentrations; (2) a CEMS to measure stack gas volumetric flow rates [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

32. The NO<sub>x</sub> CEMS shall meet EPA monitoring performance specifications (40 CFR 60.13, 40 CFR 60, Appendix B, Performance Specification 2; and 40 CFR 60, Appendix F). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

33. The volumetric flow rate CEMS shall meet EPA monitoring performance specifications (40 CFR 52, Appendix E). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

34. In the quarterly excess emission reports, CertainTeed Corporation shall report all dates and times when process gasses are vented to the bypass stack, CertainTeed Corporation shall also report the reason for each instance of venting to the bypass stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

35. Excess emissions indicated by the CEM system shall be considered violations of the applicable emissions limits for the purposes of this permit. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

36. The glass melting furnace shall not emit greater than 5.5 pounds of NO<sub>x</sub> per ton of glass. [District Rule 4354, 5.1] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit